

REMARKS

Claims 1, 2 and 6 are canceled, claim 3 is amended and claim 13 is added as a new claim. Support for the Amendment is found, for example, on page 21, second paragraph. No new matter is presented.

Accordingly, upon entry of the Amendment, claims 3-5 and 7-13 will be all of the claims pending in the application.

I. Election/Restrictions

Applicants affirm the election to prosecute claims 1-11 in response to the restriction requirement imposed by the Examiner.

II. Response to Claim Rejections Under 35 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Walters et al (U.S. Patent No. 5,837,319).

Claim 1 is canceled herein, thereby rendering the rejection moot.

III. Claim Rejections Under 35 U.S.C. § 103

A. Walters et al

Claim 2 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Walters et al.

Claim 2 is canceled herein, thereby rendering the rejection moot.

B. Arioka in view of Shiau et al

Claims 3-11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arioka (U.S. Publication No. 2002/0037366) in view of Shiau, et al. (U.S. Patent No. 5,985,363).

The Examiner relies on Arioka for the disclosure of a method of producing an optical recording medium by coating a dye solution on a substrate by a spin coating method and drying the dye solution to form a dye recording layer similar to that of the present claims. The Examiner recognizes that Arioka does not specifically teach the spin speeds and spin times recited in the present claims.

The Examiner relies on Shiau et al for its teachings of applying a uniform coating of a photo resist solution having varying surface topography using various speeds at different stages of the process. It is the Examiner's position that it would have been obvious for one of ordinary skill in the art to incorporate the teachings of Shiau et al in the dye solution coating process of Arioka to produce improved coating uniformity and reduced radial striations since the references seek to solve similar issues.

Applicants respectfully traverse the rejection and submit that the Examiner has not made a *prima facie* showing of obviousness. First, Shiau et al is non-analogous art. The proper test for analogous art is (1) whether the art is from the same field of endeavor, and (2) if the reference is not in the same field of endeavor, whether the reference is reasonably pertinent to the particular problem with which the inventor is involved. In this case the present invention relates to a method for producing an optical recording medium comprising supplying a dye solution; coating the dye solution on a substrate by a spin coating method; and drying the dye

solution to form a dye recording layer, wherein a low rotation step of rotating the substrate at a speed lower than the speed at the beginning of the supply of the dye or at the end of the supply of the dye is employed in the sequence and wherein the rotation speed of the substrate at the beginning of the supply of the dye solution is 400 rpm or higher. See amended claim 3. On the other hand, Shiau et al relates to a method for providing a uniform coating of photo resist over a substrate for use in the fabrication of integrated devices and circuits. Thus, Shiau et al is not in the same field of endeavor as the present invention.

Similarly, Shiau et al is non-analogous art with respect to Arioka. That is, Arioka is related to a process of spin coating and an apparatus for forming a thin film having a uniform thickness on a substrate, see Abstract, and while Arioka mentions that the process may be used for manufacturing semiconductors in paragraph [0001], a step of coating a dye solution on a CD-R is the only exemplified embodiment of Arioka. See Examples 1-5. On the other hand, Shiau et al relates to a method for providing a uniform coating of photo resist over a substrate for use in the fabrication of integrated devices and circuits. Thus, Shiau et al is not in the same field of endeavor as Arioka.

Further, contrary to the Examiner's assertions, one of ordinary skill in the art at the time of the invention would have even selected Shiau et al without the advantage of hindsight and knowledge of the present specification. *See In re Antle*, 444 F.2d 1168 (CCPA 1971).

The Examiner first states that one of ordinary skill in the art would have been motivated to look to the prior art for exemplary teachings of specific spin coating process parameters to be used in Arioka's dye solution containing process. Further, the Examiner states that Shiau et al is similarly related to Arioka because Shiau et al relates to coating on a substrate having an

uneven topography and Arioka discloses that similar issues arise in coating photo resist coatings on semiconductor substrates and dye solutions on optical recording medium substrates.

However, Applicants submit that in the absence of a specific teaching regarding spin speed, one of ordinary skill in the art would have considered conventional speeds in a conventional spin process and it would not have been necessary to consult the prior art. Thus, it is only with the advantage and knowledge of Applicants' specification that the Examiner could have arrived at this conclusion since a low rotation step of rotating the substrate at a speed lower than the speed at the beginning of the supply of the dye or at the end of the supply of the dye is employed in the sequence and wherein the rotation speed of the substrate at the beginning of the supply of the dye solution is 400 rpm or higher (as recited in amended claim 3) is the solution to the problem with which Applicants were faced at the time of the invention. Defining the problem with which Applicants were faced in terms of the solution is improper hindsight in the selection of the prior art applied by using the invention as an editing standard of the most applicable references out of a vast array of inapplicable and misleading references. *See, Monarch Knitting Machinery Corporation, et al v. Sulzer Moratt, et al.*, 139 F.3d 877 (Fed. Cir. 1998). Thus, one of ordinary skill in the art would not have selected Shiau et al as reasonably pertinent to the problem with which the inventors were faced at the time of the invention.

Even further, although Arioka mentions that the process may be used for manufacturing semiconductors, it does not mean the method of Shiau et al can be used for manufacturing optical recording media. Shiau et al discloses a method of providing uniform photoresist coatings for tight control of image dimensions. Since a photoresist coating liquid may have different properties (such as viscosity) from a dye solution applied to optical recording media,

there is no support for the assumption that the method of Shiau et al can be combined with Arioka to make optical recording media. One of ordinary skill in the art would not think the advantages of the method of Shiau et al can be obtained when the method is used for making optical recording media. Further, a step of coating a dye solution on a CD-R is the only exemplified embodiment of Arioka.

In the present invention, the presence of the low-speed rotation step reduces the influence from centrifugal force, and thus the variation of the thickness of the layer along the radius direction can be suppressed. This effect is clear from Fig. 1 in comparison with Figs. 2 and 3.

In the usual method employed at the time of filing the present application, the rotation speed of the medium was gradually increased from the start of the supply of the dye coating solution (see the drawings of US 5,837,319 (Walters)). In contrast, the present invention employs the low-speed rotation step, which is contrary to the common technical knowledge in the field of optical media at the time of filing the present application. As a result, optical media with a noise level of 0.0 were obtained (see Examples of the present application). Such effects are not taught or suggested in any of the cited references or any combination of the cited references. Accordingly, the presently claimed invention is unobvious over the cited references.

Further, new claim 13 recites that the rotation speed of the substrate at the beginning of the supply of the dye solution is 420 to 600 rpm. In contrast, the rotation speed of the substrate is at least 1,000 rpm in the method disclosed in Shiau et al (column 5). Therefore, new claim 13 is patentable over the art for this additional reason.

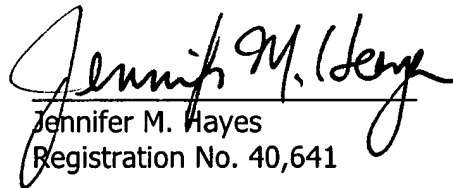
Accordingly, Applicants respectfully request withdrawal of the rejection.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

CUSTOMER NUMBER

Date: June 16, 2006